

Notice of Allowability

Application No.

10/076,255

Examiner

Blanche Wong

Applicant(s)

TAHERNEZHAADI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to June 8, 2006.
2. ☒ The allowed claim(s) is/are 1,3-17,19-31 (renumbered 1-29 respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date Jun'06.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Simon B. Anolick (Reg No. 37,585) on June 12, 2006.

The application has been amended as followed:

1. (Currently Amended) An apparatus for multi-party communication in a communication system comprising:

a multi-party communication device ~~configured to accepting~~ accepting a plurality of types of communication signals from multiple parties via a transport network, the multi-party communication device including:

one or more tagging devices that are each ~~configured to respectively tagging~~ incoming communication signals with a tag of predetermined information particular to each signal; and

a controller ~~configured to combine~~ combining the tagged output signals from the one or more tagging devices into data packet signals and transmit the data packet signals to each of the multiple parties via the transport network, and

wherein a first type of signals of the plurality of types of signals is packet based signals and a second type of signals of the plurality of types of signals is pulse code modulated signals.

2. (Cancelled)

3. (Currently Amended) The apparatus according to claim [[2]] 1, wherein the packet based signals are received from at least one of wireless mobile stations and voice over IP users and the pulse code modulated signals are received from PSTN landline users.

4. (Currently Amended) The apparatus according to claim [[2]] 1, further comprising:
one or more expanders each ~~configured to decode~~ decoding received pulse code modulated signals;

a summing device ~~configured to receive~~ receiving and summing the decoded signals output from the one or more expanders; and

an encoder ~~configured to receive~~ receiving the summed signal from the summing device, ~~encode~~ encoding the signal for packet based transmission and tagging the encoded packet based signal with predetermined information particular to the encoded packet based signal[[:]].

5. (Currently Amended) The apparatus according to claim 1, further comprising:
one or more decoding devices wherein each of the one or more decoding devices being associated with a corresponding one of the multiple parties and ~~being configured to receive~~ receiving the signals transmitted by the multi-party communication

device via the transport network and wherein each of the one or more decoding devices including:

a plurality of decoders ~~configured to decode~~ decoding signals; and

a de-tagging and scheduling device ~~configured to receive~~ receiving the data packet signals, reading the predetermined information contained in the tags and ~~schedule~~ scheduling a queue that determines a sequential order according to which packets are sent to the decoders and also addresses which of the plurality of decoders that a particular signal is to be sent.

6. (Currently Amended) The apparatus according to claim 5, wherein each of the plurality of decoders ~~is configured to decode~~ decoding a corresponding type of signal according to a predetermined decoding algorithm and also ~~configured to decode~~ decoding multiple signals that are of the same type, but having differing parameters.

7. (Original) The apparatus according to claim 6, wherein each of the plurality of decoders includes a plurality of predetermined thread logic routines that each correspond to a signal of the multiple signals that are of the same type, but have different parameters.

8. (Original) The apparatus according to claim 5, wherein each of the one or more decoding devices is assigned to one of a corresponding end user and a PSTN using the multi-party communication device.

9. (Original) The apparatus according to claim 5, wherein the tagging and scheduling device schedules the queue for decoding incoming signals based on a task scheduling algorithm wherein the signals to be decoded are ordered according to a speech rate of the packet.

10. (Original) The apparatus according to claim 9, wherein packets having higher speech rates are given higher queue priority over packets having lower speech rates during a given sampling period.

11. (Currently Amended) The apparatus according to claim 5, wherein each of the one or more decoding devices is further configured to ~~decode~~ decoding all signals except for the signal that originated with the particular user associated with decoding device.

12. (Previously Amended) The apparatus according to claim 5, wherein each of the one or more decoding devices is included within at least one of a mobile telephone, an Internet phone and a PSTN.

13. (Currently Amended) The apparatus according to claim 5, wherein the controller is ~~configured to:~~

~~create~~ creating a call control table that tracks a number of participants in a current multi-party call in order to determine when existing participants drop out of the current multi-party call and when new participants join the multi-party call; and

relaying information within the control table to the one or more decoding devices via the transport network.

14. (Currently Amended) The apparatus according to claim 1, wherein the controller ~~is configured to combine~~ combining the tagged output signals by multiplexing the packets to form a single superpacket.

15. (Currently Amended) The apparatus according to claim 1, wherein the multi-party communication device is further ~~configured to omitting~~ a respective user's voice signal from a signal sent by the controller via the transport network to that particular user.

16. (Original) The apparatus according to claim 1, wherein the tag includes one or more of a user ID, a type of encoding particular to the signal and a particular network of the originating user.

17. (Previously Amended) A method for multi-party conferencing in a communication network, the method comprising the steps of:

receiving a plurality of types of communication signals within a multi-party communication infrastructure from multiple parties via a transport network in communication with the infrastructure, wherein a first type of signals of the plurality of types of signals are packet based signals and a second type of signals of the plurality of signals are pulse code modulated signals;

decoding the received pulse code modulated signals;

summing the decoded pulse code modulated signals to achieve a single combined signal;

encoding the single combined signal for packet based transmission and tagging the resulting encoded single combined signal with predetermined information particular to the encoded single combined signal;

tagging received communication signal with a corresponding tag that includes predetermined information particular to each signal;

combining the tagged output signals into a single data packet; and

transmitting the single data packet to the multiple parties over the transport network to effect a multi-party communication session.

18. (Cancelled)

19. (Previously Amended) The method according to claim 17, wherein the packet based signals are received from at least one of wireless mobile stations and voice over IP users and the pulse code modulated signals are received from PSTN landline users.

20. (Previously Amended) The method according to claim 17, further comprising the steps of:

receiving the tagged communication signals via the transport network within a decoding device, wherein the tagged communication signals are de-tagged so as to extract the predetermined information within the tag and wherein the decoding device includes a plurality of decoders; and

scheduling the communication signals for decoding by one of the plurality of decoders based on the tag information according to a predetermined queuing scheme.

21. (Currently Amended) The method according to claim 20, wherein each of the plurality of decoders ~~is configured to handle~~ handling a corresponding type of signal and ~~also configured to decode~~ decoding multiple signals that are of the same type.

22. (Original) The method according to claim 21, wherein each of the plurality of decoders includes a plurality of predetermined thread logic routines that each correspond to a signal of the multiple signals that are of the same type.

23. (Previously Amended) The method according to claim 20, wherein the decoding device is assigned to a corresponding end user connected to the multi-party communication device.

24. (Original) The method according to claim 20, wherein the queue is scheduled to decode incoming signals based on a task scheduling algorithm wherein the signals to be decoded are ordered according to a speech rate of the packet.

25. (Original) The method according to claim 24, wherein packets having higher speech rates are given higher queue priority over packets having lower speech rates during a given sampling period.

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26. (Currently Amended) The method according to claim 20, wherein the decoding device is further ~~configured to decode~~ decoding all signals except for the signal that originated with the particular user associated with a corresponding decoding device.

27. (Previously Amended) The method according to claim 20, wherein the decoding device is included within at least one of a mobile telephone, an Internet phone and a PSTN.

28. (Previously Amended) The method according to claim 20, further comprising the steps of:

creating a call control table that tracks a number of participants in the multi-party call in order to track when users drop out of the multi-party call and when new users join the multi-party call; and

relaying information from the control table to the decoding device via the transport network.

29. (Previously Amended) The method according to claim 17, wherein the packets are combined by multiplexing the packets to form a single super packet.

30. (Previously Amended) The method according to claim 17 further comprising the step of:

omitting a respective user's voice signal from a signal sent by the controller via the transport network to that particular user.

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31. (Previously Amended) The method according to claim 17, wherein the tag includes one or more of a user ID, a type of encoding particular to the signal, and a particular network of the originating user.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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June 13, 2006



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